

REMARKS

By this amendment, claims 39, 47, 59, 65, 67, 69, 70, and 72-76 have been amended to further indicate that the methods and compositions of the present invention consist essentially of the recited steps and/or agents. The present amendments do not add any new matter to the application. Claims 39-43, 47, 48, 54, and 56-76 are currently pending and under examination in the present application. For the reasons set forth below, Applicants submit that the present amendments and arguments place this application in condition for immediate allowance.

As an initial matter, in the Office Action dated May 11, 2010, the Examiner rejected claim 72 under 35 U.S.C. §112, first and second paragraphs, as failing to comply with the written description requirement and as being indefinite. In particular, in making the rejections, the Examiner asserted that there was no support for applying a chemical treatment and a composition with both lecithin and a chemical treatment agent. Additionally, the Examiner asserted that the difference between a chemical treatment and a chemical treatment agent was unclear, and that it was also not clear whether the step of applying "such chemical treatment" was distinct from the application of the chemical treatment agent applied as part of a composition with lecithin. For the reasons set forth below, Applicants submit that these rejections are respectfully traversed and should be withdrawn.

Contrary to the Examiner assertions, there is more than sufficient support in the present application for applying a chemical treatment and a composition with both lecithin and a chemical treatment agent, and it would be entirely clear to one of ordinary

skill in the art that the chemical treatment agent of the present invention, namely eugenol or salts thereof, may be applied independently and prior to the application of a composition consisting essentially of lecithin and eugenol. Indeed, the present application clearly discloses on page 2 that it is known in the art to apply eugenol as a treatment agent in a method for treating fruits and vegetables, and page 8 of the present application further indicates that the lecithins and the treatment agents may be applied simultaneously, separately, and/or staggered over time. This is precisely what is recited in claim 72, where it is indicated that eugenol is applied prior to the application of the mixture of eugenol and lecithin. Accordingly, Applicants submit that claim 72 is in full compliance with the requirements of 35 U.S.C. §112, first and second paragraphs, and Applicants further submit that the Examiner's rejections are respectfully traversed and should be withdrawn.

In the Office Action dated May 11, 2010, the Examiner then rejected claims 65, 72, 73, and 76 under 35 U.S.C. §103(a) as being unpatentable over EP 1 106 070 ("Garcia-Mina"). The Examiner further rejected claims 39-43, 47-48, 54, 56-64, 66-71, and 74-75 under 35 U.S.C. §103(a) as being unpatentable over Garcia-Mina in view of U.S. 6,514,551 ("Schur"). These rejections, insofar as applied to the claims as amended, are respectfully traversed for the reasons as stated below.

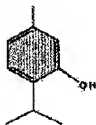
As noted above, by the present amendments, the claims of the present application have been amended to further indicate that the methods and compositions recited in the claims consist essentially of particular steps and particular chemical treatment agents, namely eugenol or salts thereof. In the present Office Action, the Examiner commented

that although Applicants had previously amended the claims to indicate that the chemical treatment agents consisted essentially of eugenol or salts thereof, the term "comprising" was still used in certain of the claims and it was thus possible that additional steps and/or additional ingredients could still be included in the claims. However, by virtue of the present amendments, it is entirely clear that additional steps and/or ingredients that would materially affect the basic and novel characteristics of Applicant's invention would undoubtedly be excluded from the claims. In this regard, it is thus also believed to be clear that the presently-claimed methods and compositions are further distinguished over the Garcia-Mina reference which requires additional active chemical treatment agents beyond eugenol. Indeed, as explained further below and as pointed out in response to the previous Office Action in this case, Garcia-Mina requires a "second active ingredient" in addition to a "main active ingredient."

As noted previously, Garcia-Mina is specifically directed towards compositions that include a second active agent, which can be thymol, cinnamaldehyde, or a number of other ingredients, and Garcia-Mina further describes a treatment with a composition that includes relatively large amounts of active ingredients in addition to eugenol. For example, Garcia-Mina describes preparation of a 1 kg product that includes 300 g of thymol, 200 g of cinnamaldehyde, and 50 g of cuminaldehyde, in addition to 120 g eugenol, to yield a product with more than 60% active ingredient. See Garcia-Mina, Paragraph [0031]. For another example, Garcia-Mina describes a product that is 20% thymol and 15% cinnamaldehyde, in addition to 15% eugenol, to yield a product with 50% active ingredient. See Garcia-Mina, Paragraph [0035].

In sharp contrast, the compositions and methods described and claimed in the present application make use of a more limited amount of a single active ingredient (e.g., about 30% or less) which consists essentially of eugenol or salts thereof. In fact, as pointed out previously, the present inventors have found that active ingredients, such as those disclosed in Garcia-Mina, are phytotoxic to the plants that are treated. However, embodiments of the claimed composition, and related methods, make use of limited amounts of eugenol as a unique active ingredient, and provide eugenol in a specific corresponding range of amounts relative to lecithin amounts that are used, the combination of which leads to a far improved inhibition of phytotoxicity and associated beneficial effects that are not described nor suggested by Garcia-Mina.

Furthermore, it is also the case that the incorporation of the additional ingredients recited in Garcia-Mina would materially change the characteristics of the present invention and would thus be excluded from the presently-claimed methods and compositions. Indeed, it is well-known in the art that thymol is comprised of the following chemical formula, and it is well known that phenolic ring structures frequently result in a phytotoxic effect.



Similarly, as shown in the attached abstract by Cloyd, et al. (HortScience, 2002, 37(4): 671-672), cinnamaldehyde is also known by those skilled in the art as a phytotoxic agent.

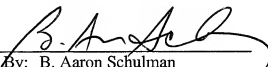
As such, it is thus the case that the compounds of the present invention would necessarily exclude the additional "active ingredients" recited in Garcia-Mina because the incorporation of thymol and/or cinnamaldehyde into the compositions would be expected to increase their phytotoxicity and would thus materially change the characteristics of Applicant's invention, where a limited amount of eugenol is used relative to lecithin amounts in order to provide an improved inhibition of phytotoxicity. Schur adds nothing further in this regard and was merely cited for its teachings regarded a dilution of lecithin.

Accordingly, in light of the foregoing discussion, Applicants submit that the present invention is not rendered obvious by the cited references and that the claims of the present application are clearly patentable over those references. Applicants thus submit that the Examiner's rejections on the basis of those references is respectfully traversed and should be withdrawn.

In light of the amendments and arguments provided herewith, Applicants submit that the present application overcomes all prior rejections and objections, and has been placed in condition for immediate allowance. Such action is respectfully requested.

Respectfully submitted,

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By: B. Aaron Schulman
Registration No.: 31,877

STITES & HARBISON PLLC • 1199 North Fairfax St • Suite 900 • Alexandria, VA 22314
TEL: 703-739-4900 • FAX: 703-739-9577 • CUSTOMER NO. 000881